

What is claimed is:

1. A valve assembly for controlling the flow of a fluid through a tube comprising:  
a valve including a bar, a plunger, and a passage between the bar and the  
plunger for receiving the tube, wherein the plunger is moveable away  
from the bar to an open position where the fluid can flow through the  
tube, and moveable toward the bar to a closed position where the  
plunger pinches a portion of the tube against the bar to prevent or  
substantially prevent the flow of fluid through the tube;  
a caliper including a main lever operable to move the plunger to the open  
position and a lock lever pivotally attached to the main lever and  
operable to retain the plunger in the open position; and  
a cable including a caliper end attached to the lock lever and a valve end  
attached to the plunger.
2. The valve assembly of claim 1 wherein the lock lever is operable to release the  
plunger from the open position by pivoting the lever toward the main lever.
3. The valve assembly of claim 1 wherein the valve includes a spring operable to  
bias the plunger in the closed position.
4. The valve assembly of claim 1 wherein the valve includes a spring that  
generates a force to bias the plunger in the closed position and wherein the  
force is selectively adjustable.
5. The valve assembly of claim 1 wherein:  
the caliper includes a body;  
the main lever of the caliper is pivotally attached to the body at a first  
location;  
the caliper end of the cable is attached to the lock lever of the caliper at a  
second location; and

the lock lever is pivotally attached to the main lever of the caliper at a third location that is not aligned with the cable and the second location.

6. The valve assembly of claim 5 wherein the lock lever includes a lip that contacts the caliper body to retain the plunger in the open position.

5 7. The caliper of claim 5 wherein;

the main lever is pivoted in a direction to move the plunger to the open position; and

the lock lever is pivoted in the same direction to release the plunger from the open position.

10 8. A portable fluid recovery system comprising:

a reservoir for storing a fluid and an drain tube attached to the reservoir for draining the fluid from the reservoir; and

a valve assembly including:

15 a valve including a bar, a plunger, and a passage between the bar and plunger where a portion of the drain tube is disposed, wherein the plunger is movable away from the bar to an open position where the fluid can flow through the drain tube, and moveable toward the bar to a closed position where the plunger pinches the portion of the drain tube against the bar to prevent or substantially prevent the fluid from flowing through the drain tube; and

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a caliper including a main lever operable to move the plunger to the open position and a lock lever pivotally attached to the main lever and operable to retain the plunger in the open position; and

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a cable including a caliper end attached to the lock lever and a valve end attached to the plunger.

9. The system of claim 8 wherein the bar is operable to focus the pinching force of the plunger to a straight or substantially straight line on the drain tube to reduce the pinching force of the plunger.
10. The system of claim 8 wherein the caliper is mounted to a wheelchair.
- 5 11. The system of claim 10 wherein:  
the wheelchair includes a frame; and  
the caliper is mounted to the frame.
12. The system of claim 8 wherein the reservoir is operable to receive and store urine.
- 10 13. A valve for controlling the flow of a fluid through a tube comprising:  
a valve body including a passage having a longitudinal axis and sized to receive the tube, and a cavity that opens into the passage and includes a closed end;  
a bar attached to the body and extending through the passage adjacent the  
15 longitudinal axis and opposite the cavity;  
a plunger movable within the cavity away from the bar to an open position where the fluid can flow through the tube, and toward the bar to a closed position where the plunger pinches a portion of the tube against the bar to prevent or substantially prevent the flow of fluid through the tube.
- 20 14. The valve of claim 13 wherein the cavity includes a longitudinal axis that is perpendicular or substantially perpendicular to the longitudinal axis of the passage.
15. The valve of claim 13 wherein the bar is straight or substantially straight and cylindrical or substantially cylindrical.
- 25 16. The valve of claim 13 wherein the bar extends in a direction perpendicular or substantially perpendicular to the longitudinal axis.

17. The valve of claim 13 wherein the plunger includes a circular plate having a drain-tube contact surface that includes at least one of the group consisting of a flat or substantially flat surface, a portion that is concave and a portion that is convex.
- 5 18. The valve of claim 13 further comprising a spring disposed within the cavity between the closed end and the plunger and operable to bias the plunger toward the bar.
19. The valve of claim 18 wherein the spring includes a coil spring disposed within the cavity and compressed between the plunger and the closed end of the cavity when the plunger is in the closed position.
- 10 20. The valve of claim 18 further comprising:  
a spring adjustment plate disposed between the closed end of the cavity and the spring and movable within the cavity to adjust the spring compression when the plunger is in the closed position; and  
15 a spring adjustment member operable to move the spring adjustment plate.
21. The valve of claim 20 wherein the spring adjustment member includes a screw threaded through the body to contact the spring adjustment plate.
22. The valve of claim 13 wherein the body is made of acrylonitrile butadiene styrene plastic.
- 20 23. A method of controlling the flow of fluid through a tube comprising:  
inserting the tube into a passage of a valve between a bar of the valve and a plunger of the valve;  
moving the plunger toward the bar to a closed position wherein the plunger pinches the tube between the plunger and bar to prevent the fluid from  
25 flowing through the tube;  
pivoting a main lever of a caliper to move the plunger away from the bar to an open position that permits fluid to flow through the tube;

pivoting a lock lever relative to the main lever against a caliper body to retain the plunger in the open position; and

pivoting the lock lever relative to the main lever away from the caliper body to move the plunger to a closed position.

- 5    24.    The method of claim 23 wherein pivoting the main lever includes automatically pivoting the lock lever against the caliper body.